

5/46
DART AEROSPACE LTD

Work Order:

24315 B

Description: Skidtube Material

Part Number:

D6014-064

Dwg: D6014 Rev. A

Qty:

36

Page 1 of 1

Step	Location	Procedure	By	Date	Qty
1	DC	Issue Traveler	[Signature]	05.10.03	36
2	PG	Issue P/O: 2008621 a) Extrude as per Dwg D6014 b) Material: 7075-T73/T73510/T73511 (QQ-A-200/11) Seamless Aluminum Tube c) Minimum ultimate tensile strength = 68 ksi d) Minimum tensile yield strength = 57 ksi Possible Supplier: Aluminum Works Material certification is required	U	05.09.12	36
3	RG	Receive and Inspect for transit damage Ensure Material certification is attached	CJ	05/12/06	28
4	QC6	Inspect dimensions as per Dwg D6014 Ensure Material certification complies with Dwg D6014	ML	05/12/20	28
5	FP	Chemical Conversion Coat as per QSI 005 4.1			
6	QC3	Inspect Chemical Conversion Coat	N/A		
7	ST	Identify and Stock	CJ	05/12/06	28
8	AC	Cost / part: _____	U	16.05.01	28
9	DC	Close W/O Inspect Level 21	LD	06/05/01	28

Rev	Date	Change	Revised By	Approved
A	05.08.31	New issue	KJ/JLM	[Signature]

RELEASED
11/25/04

Block

100

100

100

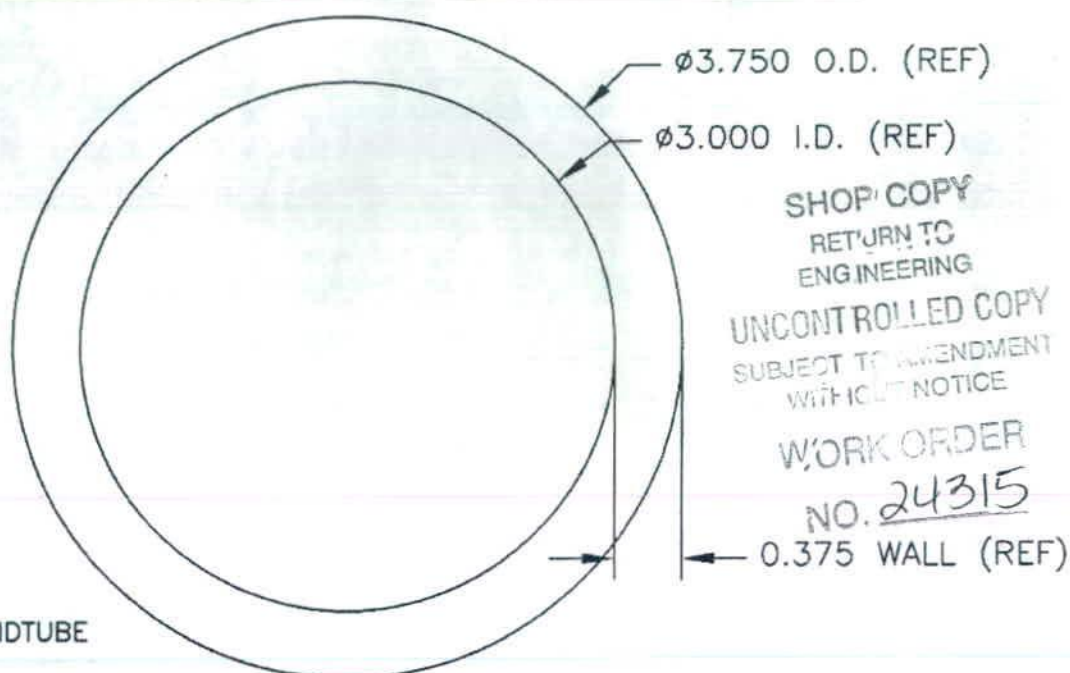
100

DART

DESIGN PH	DRAWN BY PH	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D6014	REV. A SHEET 1 OF 1
DATE 05.03.18		TITLE SKIDTUBE MATERIAL	SCALE 1:1
A	05.03.18	NEW ISSUE	

RELEASED
05-08-09 *[Signature]*

SPECIFICATION CONTROL DRAWING



NOTES

- 1) D6014-XXX SKIDTUBE
LENGTH

WHERE XXX IS LENGTH IN INCHES
EG. 64" LONG TUBE: D6014-064

- 2) MATERIAL: 3.750 OD x 0.375 WALL 7075-T73/T73510/T73511 PER QQ-A-200/11
SEAMLESS ALUMINUM TUBE.
MINIMUM ULTIMATE TENSILE STRENGTH = 68 ksi
MINIMUM YIELD TENSILE STRENGTH = 57 ksi
- 3) TOLERANCES ARE PER ASTM B210 AS FOLLOWS:
O.D.: ± 0.008 MEAN (± 0.016 INCLUDING OVALITY)
WALL: ± 0.015 MEAN (± 0.038 INCLUDING ECCENTRICITY)
LENGTH: XXX $+0.188/-0.000$
STRAIGHTNESS: 0.010" DEVIATION / 12" LENGTH
- 4) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 5) CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

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Job Costing Report

Dart Aerospace Ltd.
Hawkesbury

Sep 20, 2005
09:59 am

Work Order No	: 0024315	Department Code:	
Project Name	: D6014-104	Burden Flags	: NNNNNNN
Project For	: WK546	WO Status	: Open
Work Order Type	: Main	Invoice State	: Not Invoiced
Main WO Number	:	Invoice Date	:
House Part Number	: D6014-104	Invoice Number	:
Description	:	Invoice Amount	: 0.00
Manufactured	: No	Order Entry No	:
Amount Req'd	: 0	OE Value	: 0.00
Amount Done	: 0	Est Mark Up	: 0.000%
Start Date	: 09-20-05	Actual Mark Up	: 0.000%
Est Finish Date	:		
Act Finish Date	:		
Drawings Req'd	: No		
Ok for Approval	:		
Approval Rec'd	:		

\$0 Posted to Finished Goods

	Estimated	Actual	Var. %	Posted	To Post
Material Cost	0.00	0.00	0.00	0.00	0.00
Engineering Hours	0.00	0.00	0.00		
Engineering Cost	0.00	0.00	0.00	0.00	0.00
Production Hours	0.00	0.00	0.00		
Production Cost	0.00	0.00	0.00	0.00	0.00
Packaging Hours	0.00	0.00	0.00		
Packaging Cost	0.00	0.00	0.00	0.00	0.00
OverHead Hours	0.00	0.00	0.00		
OverHead Cost	0.00	0.00	0.00	0.00	0.00
CNC Hours	0.00	0.00	0.00		
CNC	0.00	0.00	0.00	0.00	0.00
Misc. Hours	0.00	0.00	0.00		
Misc.	0.00	0.00	0.00	0.00	0.00
Burden	0.00	0.00	0.00		
Total Cost	0.00	0.00	0.00		
Mark up	0.000	0.000			
Selling Cost	0.00	0.00			

	Estimated	Actual
Labour Hrs/Amount Done	0.00	0.00
Profits/(Loss)	0.00	0.00



ALUnna

Abnahmeprüfzeugnis 3.1 - EN 10204:2004**Inspection Certificate 3.1 - EN 10204:2004 / Certificat de Reception 3.1- EN 10204:2004****Kunde:** Dart Aerospace Ltd.
Client:1270 Aberdeen Street
K6A1K7 Hawkesbury, ON Canada**Zeugnisnummer:** 837/05**Cert No. / No. du certificat:****Bestellnummer:** 2008621**Order No. / No. de commande****Auftrag:** 15626/1**Our Reference/Notre Reference:****Produkt:** Rohre nahtlos gepresst
Product / Produit: Tubes seamless extruded Tubes file sur aliguille**Spezifikation:** AMS - QQ - A - 200/11E**Specification:****Werkstoff:** 7075**Alloy/Alliage:****Zustand:** T 73511**Temper/État****Abmessung:** 3,750 INCH x 3,000 INCH x 0,375 INCH x 104,000 INCH
Size / Dimension: D6014-104**Kennzeichnung:** ALUnna-Cert No.837/05-7075-T73511-cast No.4692-AMS-QQA/200/11E-3.750" OD X0.375"Wall-Heat No.250/10-
Marking/Marquage: lot15626/1-1-P.O.2008621**Lieferung****Delivered Material / Matériel délivré:**

pcs.

28

lbs

1197

1. Chemische Analyse**Chemical Analysis / analyse chimique**

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Zr	Bi	Sn	Ni
Charge/ min.			1,2		2,1	0,18	5,1						
Cast No. max.	0,40	0,50	2,0	0,30	2,9	0,28	6,1	0,20					
4692/05	0,077	0,174	1,445	0,032	2,415	0,210	5,898	0,039	0,003	0,0344	0,0001	0,0013	0,0040

Elements without indication < 0,01 %

2. Mechanische Eigenschaften**Mechanical Properties / Valeurs Mécaniques**

Anforderungen Requirements	tensile (Rm) ksi	yield (Rp0,2) ksi	elongation 2" %	elongation A %	Hardness HB	Heat No.
min.	68,0	57,0				
max.						
1	80,330	71,775	11,0		151	250/10 - 28 pcs.
2	79,605	70,035	11,0		146	

**Ergebnis der
Prüfungen:**

Es wird bestätigt, daß die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellannahme entspricht

Test results:

We confirm that the delivery has been tested and applies to the agreements made on receipt of the order

Resultats:

Nous confirmons que la livraison a été contrôlée et correspond avec les conventions faites à la réception de la commande

KroosD

Certified acc. to DIN EN ISO 9001:2000, valid until 2006-03-09
Certificate No.: 001959 QM

ALUnna

Abnahmebeauftragter

31.10.2005



ALUnna

Aluminiumwerk Unna AG · Uelzener Weg 36 · D-59425 Unna

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info@alu-unna.de
www.alu-unna.de

ON

RECEIVED OCT 4 3 2005

page: 1
date: 5.10.2005
customer: 40980

order confirmation

15626

your PO dated: 12.09.2005
your PO No.: 2008621
your ref.: Linda Lacelle

contact: Petra Eisenblätter
Tel.: + (303) 755 5672
Fax: + (303) 755 5936

representative: CLAUD J. BETTER
Your VAT No.:
AWU VAT No.: DE177869055

We supply acc. to our delivery terms and conditions:

item	quantity	unitprice	USD	unit value	USD	dispatch date: delivery date
001	36,000 PC	353,05	PC	12.709,80		2005.49

Technical Amendment

AWU article: 19932 / Tariff no. 76082091

Customer article: D6014-104 3.750 X 0.375 X 104

product: TUBES / seamless extruded / EN AW-7075 / round

condition: T 73511 / AMS-QQ-A-200/11E

outer diameter:	3,750 INCH Tol.	+0,016	-0,016
tol. for mean OD		+0,008	-0,008
inner diameter:	3,000 INCH		
wall thickness:	0,375 INCH Tol.	+0,038	-0,038
fixed length	104,000 INCH Tol.	+0,188	

inspection cert. acc. to EN10204/3.1 / RM 469 / Rp0,2: 393

straightness 0,01 INCH / 1 FEET / RMS outer 25

tol. on quantity +10 % -10 %

3.750" OD 0.375" Wall, 104" lengths

Part Number D6014-104 skidtube

Tolerances per ASTM B210

Outside surface: max. defects up to 0.005" (longitudinally)

Tubes protected with corrosion protective oil

Commerzbank AG, Unna

Konto-Nr. 102 56 00 · BLZ 443 400 37
S.W.I.F.T. - Code: COBADE FF 443
IBAN: DE 90 4434 0037 01025600 00



ALUnna

order confirmation

15626

page: 2
date: 5.10.2005
customer 40980

Tubes line marked

Packing:

seaworthy wooden cases

terms of delivery:

DDP (Delivered, Duty, Paid)

Terms of payment:

30 days after date of delivery

delivery address:

Dart Aerospace Ltd.

1270 Aberdeen Street

CDN Hawkesbury, ONT, K6A1K7

